

What is claimed is:

1. A voltage distribution system adapted for use with a cathode of a radiographic sensor device of a radiographic imaging apparatus, comprising:

an insulated conductor formed on a first detector portion of said radiographic sensor device and providing a high voltage to said cathode;

an intermediate conduction portion electrically connected to said insulated conductor and provided on said first detector portion, with said intermediate conduction portion including a contact surface; and

a separable interconnect extending from a second signal processing portion of said radiographic imaging apparatus, said second portion being removably connected to said first portion, said separable interconnect being coupled to a voltage source and being positioned to come into contact with said contact surface of said intermediate conduction portion when said first detector portion of said radiographic sensor device is assembled to said second signal processing portion.

2. The distribution system of claim 1, wherein said separable interconnect is biased against said intermediate conduction portion when said first portion is assembled to said second portion.

3. The distribution system of claim 1, wherein said separable interconnect extends from and is movably mounted to said second signal processing portion and is capable of moving with respect to a plane of said second signal processing portion.

4. The distribution system of claim 1, wherein said separable interconnect is deformable.

5. The distribution system of claim 1, wherein said separable interconnect comprises a coil spring biasing said interconnect away from said second portion.

6. The distribution system of claim 1, wherein said separable interconnect comprises a biased leaf spring.

7. The distribution system of claim 1, wherein said intermediate conduction portion comprises a metal pad.

8. The distribution system of claim 1, wherein said first detector portion is capable of moving a predetermined distance with respect to said second signal processing portion without said separable interconnect breaking an electrical connection with said intermediate conduction portion.

9. A method of providing a high voltage to a cathode of a radiographic sensor device of a radiographic imaging apparatus, comprising the steps of:

providing an insulated conductor on a first detector portion of said radiographic sensor device, with said insulated conductor communicating a high voltage to said cathode;

providing an intermediate conduction portion electrically coupled with said insulated conductor on said first detector portion, with said intermediate conduction portion including a contact surface; and

providing a separable interconnect extending from a second signal processing portion of said radiographic imaging apparatus, with said separable interconnect communicating with a high voltage source and being positioned to come into contact with said contact surface of said intermediate conduction portion when said first portion is assembled to said second portion;

wherein when said first portion of said radiographic sensor device is assembled to said second portion, said separable interconnect removably contacts said intermediate conduction portion and conducts a high voltage to said intermediate conduction portion and thereby to said insulated conductor and said cathode.

10. The method of claim 9, further comprising the step of biasing said separable interconnect away from said second portion.

11. The method of claim 9, wherein said first portion is capable of moving a predetermined distance with respect to said second portion without said separable interconnect breaking an electrical connection with said intermediate conduction portion.

12. The method of claim 9, wherein said separable interconnect is biased against said intermediate conduction portion when said first portion is assembled to said second portion.

13. The method of claim 9, wherein said separable interconnect is movably mounted to said second portion and is capable of moving into and out of said second portion.

14. The method of claim 9, wherein said separable interconnect is deformable.

15. The method of claim 9, wherein said separable interconnect comprises a coil spring biasing said separable interconnect away from said second portion.

16. The method of claim 9, wherein said separable interconnect comprises a biased leaf spring.

17. The method of claim 9, wherein said intermediate conduction portion comprises a metal pad.

09865901-110501